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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,734

09/09/2003

Ed H. Frank

14183US02

2791

23446 7590 01/07/2010  
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EXAMINER

WIN, AUNG T

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

01/07/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,734	<b>Applicant(s)</b> FRANK ET AL.	
	<b>Examiner</b> AUNG WIN	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-46 is/are pending in the application.
- 4a) Of the above claim(s) 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to amended claims filed on 09/25/2009 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-22 & 24-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crosbie (US20020085719A1) in view of Sharma et al. (US006069871A)

3.1 Regarding claim 1, Crosbie discloses a method for communication, the method comprising:

Receiving one or more polling message from an access device by one or more of a plurality of access points in a hybrid wired/wireless local area network [receiving service request message from mobile device by access point in a hybrid wired/wireless local area network [hybrid wired/wireless network: Figure 1] [service request message: 0044];

determining a load on said one or more of said plurality of access points for optimal loading balancing [Roaming server i.e., switch: 0035] [In responsive to service

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request message, Roaming server determines loads on relevant access points and centrally controls the network based on determined loads on access points for load balancing among access points and improving the radio link quality of service: 007, 0042-0047 & 0055]; and

Communicating information of said determined optimal load balancing for said one or more of plurality of access points to said access device, wherein said access device selects [communicating less congested access point to mobile device for mobile device to select less congested access point: (0044 & 0045)] and re-establishes communication with one or more of said plurality of access points based on said communicated information of said determined optimal load balancing [communicating the mobile device to re-establish with less congested access point based on said communicated information of said determined optimal load balancing: 007, 0042-0047 & 0055].

Thus, Crosbie discloses that communication set up and hand-off management centrally controlled by roaming server i.e., claimed switch according to load information of access points to achieve network optimal load balancing [0044] but does not explicitly disclose communicating a load of access point to a switch in response to polling message i.e., service request message.

Sharma et al. also discloses the centrally controlled optimal load balancing method in a wireless network [see Figures] in which access points i.e., Base stations communicate load information to the switch i.e., BSC in response to mobile device service request message [Column 4, Line 65-Column 5, Line 60].

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of invention of made to modify the Crosbie's optimal load balancing method as taught by Sharma et al. to modify load balancing method according to claim. One of ordinary skilled in the art at the time of invention of made would have been motivated to do this for efficient communication.

3.2 Claim 9 is rejected for the same reason as stated above in Claim 1 rejection because claimed executing steps are substantially close to corresponding method of claim 1. The modified method executed by wireless station and access points and switch must have stored computer programs and programming codes for executing as claimed in claim 9 because wireless stations and access points and switch are programmable computing devices.

3.3 Claim 27 is substantively similar to claim 1 rejected for the same reason as stated above in claim 1 rejection. It would have been obvious to one of ordinary skilled in the art that the modified method executed by wireless station and access points and switch must be configured to transmit, receive according to the claim 27 method.

3.4 Claims 17 & 37 are system claims rejected for the same reason as stated above in Claim 1 rejection because claim 17 & 37 systems execute the method which are substantively similar to corresponding method of claims 17 & 37. The system executed according to the modified method must comprise transmitters, receivers, controllers and

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processors as claimed because wireless stations and access points and switch are programmable computing devices.

3.5 As regards to Claims 2, 10 & 18, it would have been obvious to one of ordinary skilled in the art that modified system and method discloses the according to claims 1, 9 & 17, comprising access points, which must be in operating range of transmitting wireless station as claimed in order to receive service request message [according to 802.11 protocol: background of Crosbie].

3.6 As regards to Claims 3, 4, 11, 12, 19, 20, 28, 29, 30, 38, 39, 40, it would have been obvious to one of ordinary skilled in the art that modified method and system discloses the method according to claims 2, 10, 18, 27 & 37 comprising selecting an access point from said plurality of access points having a least load and based on a received signal strength of said plurality of access points [mobile selects the access points with best quality of service: (Crosbie: 0044-0047)]. Official Notice is also taken the concept and advantages for selecting access point for optimal load balancing based on RSSI and load is well known to one of ordinary skilled in the art at the time of invention of made and does not constitute patentable distinction from prior art methods.

3.7 As regards to Claim 26, it would have been obvious to one of ordinary skilled in the art the modified access point is one or more of: a bandwidth management controller, a quality of service controller, a load balancing controller, a session controller and a

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network management controller because optimal load balancing is controlled and processed via modified access point [see claim 1 & 17 rejections as stated above].

3.8 As regards to claim 31 and 41, it would have been obvious to one of ordinary skilled in the art that mobile device in modified method and system would be configured to broadcast one or more polling message as claimed because modified method and system is based on 802.11 standard which supports operation based on active scanning or passive scanning. It should be noted that claimed polling method would have been obvious matter of design choice and does not constitute the patentability distinctions from prior arts and existing wireless LAN or other short range communication protocol standards.

3.9 Regarding Claims 5-8, 13-16, 21, 22, 24-25, 32-36, 42-46, it would have been obvious to one of ordinary skilled in the art that the modified method and system would teach messaging protocol i.e., communicating according to wired/wireless LAN protocol and messaging sequences according to claims for communicating between access points and switch as claimed because modified method and system is centralized load balancing control method and system. It would have been obvious to one of ordinary skilled in the art that load information communicating between each of access points and switch according to modified method is aggregate load of each access points in order to determine and distribute loads across the network to achieve optimal load balancing.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUNG WIN whose telephone number is (571)272-7549. The examiner can normally be reached on Monday-thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AUNG WIN/  
Examiner, Art Unit 2617

/Patrick N. Edouard/  
Supervisory Patent Examiner, Art Unit 2617